

## ET 352 Vapour jet compressor in refrigeration

Order code: **5201.06135200**



Information about product price on demand

Parameters

Quantitative unit

ks

### GUNT ET 352

System demonstrates the operation of a vapour jet compressor in a refrigeration cycle.

It consists of a refrigeration circuit with a condenser, evaporator, and vapour jet compressor for the refrigerant, as well as a vapour circuit with a pump and vapour generator to drive the compressor.

The system features a transparent tank with a water-cooled pipe coil as a condenser and another transparent tank with an adjustable heater as an evaporator.

Water supply can be connected via a laboratory network or an external chiller (WL 110.20) to maintain a maximum water temperature of 14°C.

The flooded evaporator is equipped with a float valve as the expansion element.

The vapour generator has a heated water jacket, which can be powered electrically or by solar thermal energy using ET 352.01 or HL 313. The system uses refrigerant R1233zd, which has a low global warming potential (GWP: 4).

A PLC-controlled system with a touchscreen interface enables system operation, and data is recorded via USB storage.

Stored measurements can be accessed via WLAN/LAN or a direct LAN connection.

## Technical Data & Specifications

- **PLC:** Weintek cMT3162X
- **Vapour Jet Compressor:**
  - Minimum convergent-divergent nozzle diameter: ~1.7mm
  - Minimum mixing jet diameter: ~7mm
- **Condenser (Tank):**
  - Volume: ~3.5L
  - Pipe Coil Area: ~0.17m<sup>2</sup>
- **Evaporator (Tank):**
  - Volume: ~3.5L
  - Heater Power: 3x 175W
- **Vapour Generator:**
  - Refrigerant Tank: ~0.75L
  - Water Jacket: ~9L
  - Heater Power: 2kW
- **Pump:**
  - Maximum Flow Rate: ~1.7L/min
  - Maximum Head: ~70mWS
- **Refrigerant:**
  - Type: R1233zd
  - GWP: 4
  - Filling Volume: 2kg
  - CO<sub>2</sub> Equivalent: 0t
- **Measuring Ranges:**
  - Temperature: 12x -20...100°C
  - Pressure: 2x 0...10bar, 2x -1...9bar
  - Flow Rate: 2x 0...1.5L/min, 1x 30...320L/h
  - Power: 1x 0...750W, 1x 0...3kW

### Power Supply

- 230V, 50Hz, 1 phase
- 230V, 60Hz, 1 phase
- 230V, 60Hz, 3 phases
- UL/CSA optional

### Dimensions & Weight

- **LxWxH:** 1708x790x1524mm
- **Weight:** ~225kg

### Required for Operation

- Water connection (minimum 320L/h, max. 14°C)
- Drain or WL 110.20 chiller
- PC with Windows recommended